Software Requirements Specification

for

Rich n' Famous Rental Car

Version 1.0

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DATE: 6/3/15

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Revision History

Name	Date	Reason For Changes	Version
Andrew Lane	6/5/15	Initial Version	1.0

1. Introduction

In order to compete with competitors, Rich n' Famous Rental Car must implement a fully automated system. This system will rely on a central server in which all employees can interact with in order to seamlessly fulfill their duties all while eliminating human error.

1.1 Purpose and Intended Audience

The purpose of this document is to present a detailed description of the Rich n' Famous Rental Car automated system. It will explain the purpose, features, interfaces, constraints, and processes of the automated system.

This document has been written in a manner in which all parties can interpret. Specifically the product team, software development team, and end customer.

1.2 Project Scope

This automated system will be designed to optimize Rich n' Famous Rental Car's current processes. Migrating tedious manual process to painless automated process will decrease the difficulty and error associated with manual process.

This system is designed to integrate all business locations, employees, customers, and processes into a centralized system. More specifically, this system aims to facilitate the rental process for customers by offering online rental, catalog, and preferred customer benefits. The system will allow the tracking of vehicle statistics (added via scanner), as well as vehicle flagging (for maintenance an auction). The system will allow branches and employees to view pertinent information in regard to legal, vehicle statistics, vehicle availability, and customer information

The system will not be completely "hands free" as it will require both user and customer interaction. This system will not run Rich n' Famous Rental Car. This system will not replace traditional walk-in or phone-in business.

1.3 References

 [1] IEEE Software Engineering Standards Committee, "IEEE Std 830-1998, IEEE Recommended Practice for Software Requirements Specifications", October 20, 1998.

[2] Davis M A, "Just Enough Requirements Management: Where Software Development Meets Marketing", New York, Dorset House Publishing, 2005.

[3] Karlsson J, "A Cost-Value Approach for Prioritizing Requirements", Norges TekniskNaturvitenskapelige Uni. 1997

[4] Rich (Owner of Rich n' Famous Rental Car),"RF_Scenario_2013.pdf", unpublished.

[5] Rich (Owner of Rich n' Famous Rental Car),"richfmous.mp4", unpublished.

2. Overall Description

2.1 Product Perspective

This system will allow the business to seamlessly interact with customers as well as its employees. This will primarily be done through the system's web interface. Due to the centralization of the system, there will be no need to call other branches to get information about customers or vehicles. This system will allow all employees to work as a one, rather than separate entities.

2.2 Product Features

The automated system for Rich n' Famous Rental Car will:

- Provide an online rental service
- Provide an online rental catalog
- Provide preferred customer benefits
- Eliminate manual error
- Allow higher visibility of vehicle statistics and information to all employees
- Reduce costs associated with data entry
- Reduce costs associate with branch-to-branch communication
- Increase customer awareness (via website)
- Streamline the traditional rental process

2.3 User Classes and Characteristics

There are 4 different types of users that will interact with the system: clerks, legal, maintenance, and customers. Each of these users have a different use of the system so each of them have their own requirements.

Clerks are only concerned with customers, so they are able to manage reservations and view pertinent vehicle statistics.

Legal employees only deal with insurance related information. These employees can only view customer information; however they can update vehicle statistics as well.

Maintenance personnel only deal with vehicles, so they are only able to update vehicle statistics (Oil changes, repairs, etc...).
The above users can all generate reports based on their user role. The above users are allowed to use the website just as the customers are.

Customers are not allowed to access any employee facing data (as described above). Customers can only make reservations, view the catalog and other pertinent information, and enroll in the preferred customer program.

2.4 Operating Environment

The core portions of system will be accessed mainly from multiple business locations; however other parts of the system will also be access from the internet. The wireless scanning interface is expected to work in an outdoor or indoor environment anywhere on the business premise. The system is expected to handle simultaneous users at once at any given time.

2.5 Design and Implementation Constraints

In order to secure data, all wireless devices must communicate via encrypted channels.

The system will rely on two 3rd party entities:

- DMV - In order for the system to process a rental, the customer must have a "good" or better DMV driving status.

- Insurance – A 3rd part insurance firm properly handle claims on company vehicles.

2.6 Assumptions and Dependencies

- Employees must receive training before using the new system.
- The system must integrate with the Rich n' Famous Rental Car's scanners.

3. System Features

The completed system will provide the following functionality to all **employees** (in general) and will include the ability to:

- View reservations

- View vehicle statistics
- Locate vehicles in different lots
- Generate reports specific to the employee's role

Specific functionality for **clerks** (only) will include the ability to:

- Manage (add, update, and delete) reservations
- Manage (add, update, and delete) vehicles statistics
- Manage customer information (DMV, insurance, etc)

Specific functionality for **legal** (only) will include the ability to:
- Manage (add, update) vehicle insurance/claim information
- View customer information (DMV, insurance, etc)

Specific functionality for **maintenance** (only) will include the ability to:
- Update vehicle statistics (recommended maintenance thresholds)

The completed system will provide the following functionality to all **customers**, and will include the ability to:

- Make online reservations (including payment)
- View online catalog of rental vehicles
- Enroll in preferred customer benefits

4. Non-Functional Requirements

Operational
- The system should integrate with existing scanners
- The system should integrate with existing company machines
- The system should work on any modern web browser
- All employees should have access by default

Performance
- Any interaction between the user and system should not exceed 2 seconds (with the exception of generating large reports).
- The system will sync vehicle and customer information every 30 seconds.
- The system will have 99.9% uptime.

Security
- The system will be fully encrypted to ensure data security
- The system will prevent clerks, maintenance, customer, and legal personnel from performing actions that are not permitted for their type.
- Customer's cannot access any vehicle statistic data
- The system must not share customer information

Cultural and Political:
- The system will only accept payment in USD
- The customer facing system must comply with W3 and CSS standards
- The system must notify the customer it's using browser cookies.

NOT YET COMPLETED – NOT REQUIRED FOR HW3

5. External Interface Requirements

5.1 User Interfaces

This section describes any external system user interfaces that may be required by the system, e.g., a console window.

5.2 Hardware Interfaces

This section describes any external system hardware interfaces, e.g., an analog to digital converter that may be required by the system.

5.3 Software Interfaces

This section describes any external software interfaces, e.g., input files to this system that were created by another software system.

5.4 Communication Interfaces

This section describes any external communication interfaces, e.g., TCP/IP communication sockets that are necessary for the operation of this system.

6. Detailed Use Cases

Insert UML Diagrams and USE CASE DETAILS here

APPENDIX

Include in the appendix all supporting documentation that is unique to the project and is not accessible in other forms or in other places within the SRS. This may include correspondence concerning the project and materials provided by the customer. Do

not include material in the appendix, such as illustrations and diagrams that should be an integral part of a required section of the SRS.